

## SESSION IV

**TIME:** Wednesday 10 May, 10:30-12:00

**ROOM:** Elizabethan Room A

**TOPIC:** Being Better Prepared for Review

**MODERATOR:** Robyn Colosimo, Headquarters

This session is designed for district planners to better understand recent changes in the review process, and to help them be better prepared for review. New Guidance issued in 2005 as well as changes in Headquarters under USACE 2012 have resulted in a new and improved review process. Topics will include:

- The Civil Works Review Board
- New, standardized Report Summaries
- Making the most of early review meetings (Feasibility Scoping Meetings, Alternative Formulation Briefings, Issue Resolution Conferences, etc.)
- Interaction between Districts, HQ Regional Integration Teams (RITs), the Office of Water Project Review, and the ASA-CW (Project Planning and Review)
- Timeframes for review
- Review Guides
- Tips from senior reviewers to help you be better prepared

**TIME:** Wednesday 10 May, 10:30-12:00

**ROOM:** California West

**TOPIC:** NEPA Update and Emerging Issues

**MODERATOR:** John Furry, Headquarters

This session will address current issues and activities related to the National Environmental Policy Act that are of importance to Corps practitioners. Topics will include:

- Recent legislative initiatives that will affect feasibility-phase reports
- CEQ and Administrative initiatives related to NEPA compliance
- Inter-agency collaboration
- Emergency circumstances and environmental compliance
- Making NEPA documents more effective

The informal format will include presentations and discussions led by John Furry of the Office of Water Project Review, HQ-USACE, and Rick Bush, Chief of the Natural and Cultural Resources Analysis Section for the New Orleans District.

TIME: Wednesday 10 May, 10:30-12:00

ROOM: Elizabethan Room B

TOPIC: Scenario Based Planning: Concepts, Applications and Lessons Learned

MODERATOR: Dave Moser, Institute for Water Resources

Opening Remarks: Scenario Planning - What Is It and Why Do We Care (Dave Moser)

Planning in an Uncertain World (Charlie Yoe)

Environmental restoration is the Corps' new mission. It is of global importance and affects billions of people. It entails a great variety of wickedly complex problems that are not well served by traditional planning and analytical methods. The Muskingum Watershed Conservancy District, Puget Sound, Columbia River, Upper Mississippi, Coastal Louisiana, and the Florida Everglades are examples of the larger efforts underway with Corps involvement. Increasing complexity and an increasingly rapid pace of change are but two factors that assure that planners will labor under considerable uncertainty in trying to address these wicked problems. The P&G planning model of one most likely without project condition and one most likely with project condition for each alternative is inadequate for handling the significant uncertainties that especially plague landscape scale studies. Planning on most of the examples above has been impeded by an inability to specify satisfactory without and with project conditions. Scenario planning offers a valuable enrichment to the Corps' planning model by enabling planners to explicitly address the key uncertainties that contribute to much of the controversy that surrounds traditional planning methods. It turns the focus of planning from a single statement of what the future will be to multiple views of what the future could be. In so doing it accommodates different perspectives and legitimate differences of opinion in a manner that promises more robust and less controversial solutions to planning problems.

Scenario Planning: Lessons From the Mount St. Helen's Experience (Doug Woolley)

Mount Saint Helens erupted in 1980 and deposited three billion cubic yards of highly erodible material on the debris avalanche. If this material eroded and filled the river channel it would compromise the flood protection afforded by area levees. However, the amount of erosion, the timing, and deposition of sediment depended on future rates of re-vegetation in volcanic blast zones and future volcanic eruptions, areas in which there was no data for making probabilistic predictions. A response was required, in the face of this unusually high level of uncertainty and where the financial and social consequences of an incorrect choice were substantial. The Corps' 1986 Mount St. Helen's Decision Document was an early and successful application of scenario analysis to help choose between sediment retention basins or river dredging programs. The Document identified critical uncertainties and displayed the results so decision makers could identify the scenario that best fit their own beliefs about the uncertainties and the acceptability of the social and financial costs associated with any given alternative. The technical challenges of creating the information display matrix will be described. The display matrix will also be presented and the lessons for displaying the results of a scenario analysis will be reviewed.

Scenario Planning and Mount St. Helen's Decision Making: Reflections 20 Years Later (Leonard Shabman)

The chosen alternative - a sediment retention structure - will be described. An ex-post evaluation of its justification using 20 years of data with sediment flows will be made. With this background, the process that resulted in choosing the sediment retention structure in the face of uncertainty will be described. The decision rule appears to have been to choose the most robust alternative - the alternative that deals with the widest range of possible scenarios or uncertainties. However, that alternative had the highest costs; if the retention basin proved in hindsight to be unwarranted

it would have been an unnecessary financial expense. An alternative decision rule is to maintain flexibility, here by taking initial dredging actions, and then aggressively monitor to reduce uncertainty before a final solution is chosen—an adaptive management strategy. If the dredging alternative were chosen, but the sediment flows were high, then the retention structure would have to be built in any event; the adaptive approach would in hindsight prove to be the highest cost option. This paper will describe the policy, budgetary and political reasons the more robust solution was chosen, and will draw lessons for the design and decision making value of scenario analysis.

**TIME:** Wednesday 10 May, 10:30-12:00

**ROOM:** Elizabethan Room C

**TOPIC:** Dam Safety Program & Planning Considerations

**MODERATOR:** Eric Halpin, Headquarters

This session will have three central topics, and is structured to include plenty of time for discussion and questions.

#### Recreation and other Developments within USACE Flood Control Lands (Laila Berre, NWD)

USACE is responsible for the safety, structural integrity, and operational adequacy of Corps-owned projects, to ensure that the public is not endangered across a wide range of operating conditions. The size and use of a proposed development must be evaluated. Facilities that hold a large number of people may need to be denied for safety reasons. Structures for human habitation should be prohibited from zones subject to frequent flooding or prolonged inundation. Additionally, developments within USACE lands should not reduce the reservoir's storage space, or limit flood discharge capability, up to the Probable Maximum Flood.

This presentation discusses dam safety, real estate, and water management considerations when evaluating land development proposals, and recommends consistent multi-functional reviews of operational impacts and emergency planning, prior to approval of development proposals by District Commanders.

#### Dam Safety Criteria for Environmental Restoration Dams Designed and Constructed by USACE, and turned over to Sponsors (Kari Layman, St. Paul District)

USACE is responsible for the safety, structural integrity, and operational adequacy of projects designed and constructed by the Corps. Existing dam safety criteria and design guidance do not specifically address dams built for the purpose of environmental restoration. With regard to these structures, there is no clear guidance on the level of design (based on hazard classification) or regulation. In addition, the model PCA agreements with project sponsors do not outline dam safety monitoring and inspection responsibilities. The Corps must review existing guidance and implement standards specific to environmental restoration projects that ensure safety and operational adequacy, and limit liability to the Corps in the event of an uncontrolled release.

This presentation identifies current dam safety concerns and discusses the need to implement dam safety standards specific to projects built for the purpose of environmental restoration.

#### Operational and/or Structural Modifications to USACE Dams for Environmental Compliance Purposes (Laila Berre, NWD)

As stated above, USACE is responsible for the safety, structural integrity, and operational adequacy of Corps-owned projects, to ensure that the public is not endangered across a wide range of operating conditions. Stakeholders advocating modifying USACE projects for Environmental purposes may not be fully cognizant that operational and/or structural modifications to project features can reduce the reliability and level of protection provided by our projects, particularly under flood conditions. Maintaining authorized project purposes and preserving safety and operational adequacy must be considered in the planning and implementation of any modification to a Corps-owned dam.

This presentation recommends including dam safety experts as part of the Project Delivery Team, and advocates a formal process for evaluating modifications, including documenting approval by the District Dam Safety Officer.

**TIME:** Wednesday 10 May, 10:30-12:00

**ROOM:** Elizabethan Room D

**TOPIC:** Views from Non-Governmental Organizations

**MODERATOR:** Ellen Cummings, Headquarters

This session provides an opportunity for Non-Governmental Organizations to share their views and experiences working with the Corps. The organizations represented on the panel interact with the Corps in a variety of ways from partnerships to advocacy. Discussions will cover trends in integrated water management, and relationships with the Corps including what works and what needs improvement on regional and national levels.

The National Audubon Society's mission is to conserve and restore natural ecosystems, focusing on bird, wildlife and their habitats for the benefit of humanity and the earth's biological diversity. The Floodplain Management Association is a nonprofit educational association established to promote the reduction of flood losses and to encourage the protection and enhancement of natural floodplain values. The mission of the California Marine Affairs and Navigation Conference is to optimize California maritime benefits by providing advocacy for the maintenance and improvement of California harbors, ports, and navigation projects. The Nature Conservancy's mission is to preserve the plants, animals, and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.

The panel will be comprised of:

- Julia A. Levin, State Policy Director, Audubon California
- Eric S. Clyde, PE, Chair, Floodplain Management Association
- James M. Haussener, Executive Director, California Marine Affairs and Navigation Conference
- Jeff Opperman, Technical Advisor for Water Management, The Sustainable Waters Program, The Nature Conservancy